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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/563,091

12/30/2005

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EXAMINER

NGUYEN, TAI V

ART UNIT

PAPER NUMBER

3729

MAIL DATE

DELIVERY MODE

03/17/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/563,091	THOMASSEN, JACOBUS A.M.	
	Examiner	Art Unit	
	TAI NGUYEN	3729	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/30/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/18/2007 has been entered.

Specification

2. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

- (I) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 8, 10, 12, 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Suhara (US 6,260,260).

As applied to claims 8, 10 and 19, Suhara discloses a component placement device comprising: an elongated transport device that is configured to transport a substrate (e.g. 270) in a transport direction parallel to the transport device (e.g. 44); at least one component feeder (e.g. 264) that is located along a longitudinal side of the transport device; at least one component pick-and-place unit (e.g. 120) that is configured to: (a) pick-up a component from the at least one component feeder; and (b) place the component on the substrate (e.g. 38); and at least one [a] substrate support that is situated along a longitudinal side of the transport device and that faces away from the at least one component feeder, the at least one substrate support having a longitudinal direction that extends perpendicular (e.g. 50) to the transport direction (see Fig. 1).

As applied to claim 12, Suhara discloses wherein the substrate support comprises two guides that extend parallel to each other and transverse to the transport direction (e.g. 44).

As applied to claim 20, Suhara discloses a component placement device comprising: an elongated transport device that is configured to transport a substrate (e.g. 270) in a transport direction parallel to the transport device (e.g. 44); a component feeder (e.g. 264) that is located only on one longitudinal side of the transport device; at least one component pick-and-place unit (e.g. 120) that is configured to: (a) pick-up a component from the at least one component feeder (e.g. 260); and (b) place the component on the substrate (e.g. 38); and at least one substrate support that is situated along a longitudinal side of the transport device on an opposite side of the transport device from the component feeder, the at least one substrate support having a longitudinal direction that extends perpendicular (e.g. 50) to the transport device (see Fig. 1).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 9 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Suhara in views of Hashimoto (US 5,724,722).

As applied to claim 9, Suhara discloses all of the limitations of the claimed invention except that the substrate support is detachably connected to the component placement device. However, Hashimoto teaches the substrate (e.g. S) support is detachably connected to the component placement device (e.g. 14).

It would have been obvious to one of ordinary skill in the art at this time the invention was made to have modified the method of Suhara by utilizing the substrate connected to the component placement device, as taught by Hashimoto, to positively improve a mounter head to assist in their accurate placement (col. 1, lines 7-8).

6. Claim 14 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Suhara in views of Togami et al (US 5,855,059).

As applied to claim 14, Suhara discloses all of the limitations of the claimed invention except that the distance between the guides is adjustable. However, Togami et al teach the distance between the guides is adjustable (see column 4, lines 5-18).

It would have been obvious to one of ordinary skill in the art at this time the invention was made to have modified the method of Hashimoto by including the guide is adjust, as taught by Togami, to positively provide an improved high speed, high capability mounting components on substrate (column 1, lines 5-7).

7. Claims 16 and 17 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Suhara in views of Hata et al (US 5,778,525).

As applied to claims 16 and 17, Suhara discloses all of the limitations of the claimed invention except that the substrate support is configured to be moved vertically

from a position parallel to the transport device to a position underneath the transport device. Hata et al teach the substrate support (in Fig. 6) is configured to be moved vertically from a position parallel to the transport device to a position underneath the transport device (see Fig. 6 middle section of substrate support).

Therefore, it would have been obvious to one of ordinary skill in the art at this time the invention was made to have modified the method of Suhara by utilizing the process as taught by Hata et al, to positively orient the substrate relative to the pick-and-place unit in order to mount components.

8. Claims 11 and 13 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Suhara in views of Hashimoto (US 5,724,722).

As applied to claim 11, Suhara discloses all of the limitations of the claimed invention except that the at least one guide profile is connected to the substrate support and wherein the at least one guide profile is configured to be moved together with the substrate support in a direction that extends transverse to the transport direction.

However, Hashimoto teach the guide profile (e.g. 13) is connected to the substrate (e.g. S) support and wherein the at least one guide profile is configured to be moved together with the substrate support in a direction that extends transverse to the transport direction (see Fig. 1).

As applied to claim 13, Suhara discloses wherein the substrate support (e.g. 270) comprises two guides that extend parallel to each other and transverse to the transport direction (e.g. 44).

It would have been obvious to one of ordinary skill in the art at this time the invention was made to have modified the method of Suhara by utilizing the substrate connected to the component placement device, as taught by Hashimoto, to positively improve a mounter head to assist in their accurate placement (col. 1, lines 7-8).

9. Claim 15 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Suhara in views of Hashimoto (US 5,724,722) and further in view of Togami et al (US 5,855,059).

As applied to claim 15, Suhara as modified by Hashimoto, disclose the method substantially as claimed above. However, the modified method of Hashimoto does not teach that the distance between the guides is adjustable. Togami et al teach the distance between the guides is adjustable (see column 4, lines 5-18).

Therefore, it would have been obvious to one of ordinary skill in the art at this time the invention was made to have modified the method of Suhara by utilizing the process as taught by Togami, to positively provide an improved high speed, high capability mounting components on substrate (column 1, lines 5-7).

10. Claim 18 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Suhara in views of Hashimoto (US 5,724,722) and further in view of Nakashima et al (US 5,155,903).

As applied to claim 18, Suhara as modified by Hashimoto, disclose the method substantially as claimed above. However, the modified method of Hashimoto does not teach that the substrate support is configured to be moved vertically from a position

parallel to the transport device to a position underneath the transport device. Nashimoto teach the substrate support is configured to be moved vertically from a position parallel to the transport device to a position underneath the transport device (see Fig. 1).

Therefore, it would have been obvious to one of ordinary skill in the art at this time the invention was made to have modified the method of Suhara by utilizing the process as taught by Nakashima et al, to positively provide the transferring and placing the electrical component to a substrate by the pick and place head (col. 1, lines 19-20).

Response to Arguments

11. Applicant's arguments with respect to claims 8-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TAI NGUYEN whose telephone number is (571)272-4567. The examiner can normally be reached on M-F (7:30 A.M - 4:30 P.M).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. Dexter Tugbang/
Primary Examiner, Art Unit 3729

TN. February 8, 2008